November 7, 2011

Mr. Fred M. Wyatt
Department of Environmental Quality
Southwest Regional Office
355 Deadmore Street
Abingdon, VA 24212

Re: Permit Reissuance, Hall Creek Wastewater Treatment Plant; VPDES Permit No. VA0087378; CHA Project Number: 23354

Dear Mr. Wyatt:

Enclosed is the original signed Virginia Pollutant Discharge Elimination System (VPDES) permit application for the Washington County Service Authority (WCSA) Hall Creek Wastewater Treatment Plant (WWTP). This submittal includes Form 2A, the VPDES Sewage Sludge Permit Application Form, the DEQ Application Addendum, and the Public Notice Billing Information Form. These documents are submitted by CHA Consulting, Inc. on behalf of the WCSA.

The current permit includes effluent limits for the current facility design flow of 0.63 million gallons per day (MGD), and for the last three years the average flow has remained between 0.32 – 0.39 MGD. The WWTP is considering a request by a local industry to discharge 20,000 gpd of high-strength waste (equivalent of 0.2 MGD) of typical domestic wastewater. In addition, there is an agreement with Smyth-Washington Regional Industrial Facilities Authority (SWIFA) to allocate 0.1 MGD for potential industrial growth in the area. This would put the WWTP almost at its design capacity. As such, the Authority requests that the reissued permit include the current 0.63 MGD tier as well as a tier for a future 0.95 MGD design flow.

As indicated in my prior email correspondence, we would like to formally request a waiver for the EPA Form 2A part of the application:

1. Part B.6 Effluent Testing Data Requirements: The permit application indicates that a minimum of three scans must be performed on the parameters listed in Part B.6. For the parameters on this list that are included in the current permit with limitations, DMR data was submitted. The following parameters are not required as part of the current permit sampling, and are not routinely sampled and analyzed: TKN, nitrate plus nitrite, oil and grease, total phosphorus, and total dissolved solids. We request that the data submitted from the DMRs be considered representative of the effluent and sufficient for the application and that data for these five parameters not be required as part of the Form 2A application.

The laboratory results for the monitoring used to prepare this application were submitted to DEQ previously with the DMRs for the sampling month.

Please do not hesitate to contact me at (540) 552-5548, Robert C.H. Cornett, Washington County Service Authority General Manager, at (276) 628-7151, or Tommy Dotson, Washington County Service Authority Wastewater Manager at (276) 944-4391 should you have any questions or require any additional information.

Very truly yours,

R. Lawrence Hoffman
Vice President

RLH/egl
Enclosure
cc: Tommy Dotson, Wastewater Manager, Hall Creek Wastewater Treatment Plant, Washington County Service Authority (w/enclosure)
Robbie Cornett, General Manager, Washington County Service Authority (w/enclosure)

FACILITY NAME AND PERMIT NUMBER: Hall Creek Wastewater Treatment Plant; VA0087378

Form Approved 1/14/99
OMB Number 2040-0086

Received
NOV 08 2011
DEQ-SWRO

FORM 2A NPDES

NPDES FORM 2A APPLICATON OVERVIEW

APPLICATION OVERVIEW

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some appicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

A. **Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.

B. **Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.

C. **Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

D. **Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to provide the information.

E. **Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to submit results of toxicity testing.

F. **Industrial Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:

1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
2. Any other industrial user that:
   a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions): or
   b. Contributes a process wastewater that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
   c. Is designed as an SIU by the control authority.

G. **Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

A.1 Facilty Information.

Facilty Name	Hall Creek Wastewater Treatment Plant
Mailing Address	P.O. Box 1447
	Abingdon, VA 24212
Contact Person	Tommy Dale Dotson
Title	Wastewater Manager
Telephone Number	276-944-4391 or 276-944-4381
Facilty Address	32430 Lee Highway
(not P.O. Box)	Glade Spring, VA 24340

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant Name	Washington County Service Authority
Mailing Address	P.O. Box 1447
	Abingdon, VA 24212
Contact Person	Robert C.H. Cornett
Title	General Manager
Telephone number	276-628-7151

Is the applicant the owner or operator (or both) of the treatment works?

X owner X operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

___ facility X applicant

A.3 Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES	VA0087378	PSD	
UIC		Other	
RCRA		Other	

A.4 Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
Meadowview-Emory	570	Sanitary only	Municipal
Exit 22 Industrial Park	300	Sanitary only	Municipal
Town of Glade Spring	2,100	Sanitary only	Municipal
Abingdon Regional Jail	500	Sanitary only	Municipal

Total population served 3,470

A.5. Indian Country

a. Is the treatment works located in Indian Country?

____ Yes X No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

____ Yes X No

A.6 Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years Each year's data must be based on a 12-month time period with the 12th month of "this year" ocurring no more than three months prior to this application submittal.

a. Design flow rate 0.63 mgd

	Two Years Ago (1/09 - 12/09)	Last Year (1/10 - 12/10)	This Year (1/11 - 9/11)	
b. Annual average daily flow rate	0.39	0.32	0.36	mgd
c. Maximum daily flow rate	0.68	0.75	0.75	mgd

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

X	Separate sanitary sewer	100 %
____	Combined storm and sanitary sewer	0 %

A.8. Discharges and Other Disposal Methods.

a. Does the treatment works discharge effluent to the waters of the U.S.? X Yes ____ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i.	Discharges of treated effluent	1
ii.	Discharges of untreated or partially treated effluent	0
iii.	Combined sewer overflow points	0
iv.	Constructed emergency overflows (prior to the headworks)	0
v.	Other _____	N/A

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? ____ Yes X No

If yes, provide the following for each surface impoundment:

Location: _____

Annual average daily volume discharged to surface impoundment(s) _____ mgd

Is discharge ____ continuous or ____ intermittent?

c. Does the treatment works land-apply treated wastewater? ____ Yes X No

If yes, provide the following for each land application site:

Location: _____

Annual average daily volume applied to site: _____ mgd

Is land application ____ continuous or ____ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? ____ Yes X No

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

Transporter Name _____

Mailing Address _____

_____

Contact Person _____

Title _____

Telephone Number _____

For each treatment works that receives this discharge, provide the following:

Transporter Name _____

Mailing Address _____

_____

Contact Person _____

Title _____

Telephone Number _____

If known, provide the NPDES permit number of the treatment works that receives this discharge. _____

Provide the average daily flow rate from the treatment works into the receiving facility. _____ mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not inclued in A.8.a through A.8.d above (e.g., underground percolation, well injection)? _____ Yes X No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

_____

Annual daily volume disposed of by this method: _____

Is disposal through this method _____ continuous or _____ intermittent?

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. **If you answered "no" to question A.8.a,** go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9 Description of Outfall.

a. Outfall number **001**

b. Location **32430 Lee Hwy, Hall Creek, Glade Spring** (City or town, if applicable) **24340** (Zip Code)

Washington (County) **Virginia** (State)

36°45'04" (Latitude) **81°47'58"** (Longitude)

c. Distance from shore (if applicable) _____ ft.

d. Depth below surface (if applicable) _____ ft.

e. Average daily flow rate **0.33** mgd **From 1/07 - 9/11 DMR data**

f. Does this outfall have either an intermittent or periodic discharge? _____ Yes **X** No (go to A.9.g)

Number of times per year discharge occurs: _____

Average duration of each discharge: _____

Average flow per discharge: _____ mgd

Months in which discharge occurs: _____

g. Is outfall equipped with a diffuser? _____ Yes **X** No

A.10. Description of Receiving Waters

a. Name of receiving water **Hall Creek**

b. Name of watershed (if known) **Middle Fork Holston River**

United States Soil Conservation Service 14-digit wastershed code (if known): _____

c. Name of State Management/River Basin (if known): _____

United States Geological Survey 8-digit hydrological cataloging unit code (if known): **6010101**

d. Critical low flow of receiving stream (if applicable):

acute **1.68** cfs (1Q10) chronic **2.47** cfs (7Q10)

e. Total hardness of receiving stream at critical low flow (if applicable): **216 (sampled 5/2/00)** mg/l of $CaCO_3$

A.11. Description of Treatment

a. What levels of treatment are provided? Check all that apply.

X Primary X Secondary

____ Advanced ____ Other. Describe: ____

b. Indicate the following removal rates (as applicable)

Design BOD_5 removal or Design $CBOD_5$ removal	94 %
Design SS removal	94 %
Design P removal	N/A %
Design N removal	N/A %
Other ____	N/A %

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Chlorination

If disinfection is by chlorination, is dechlorination used for this outfall? X Yes ____ No

d. Does the treatment plant have post aeration? X Yes ____ No

A.12.

Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

Data from DMRs and operation logs (January 2007 - September 2011)

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.7	s.u.			
pH (Maximum)	7.8	s.u.			
Flow Rate	0.76	mgd	0.33	mgd	Cont.
Temperature (Winter) (Jan-Mar)	15	°C	9.7	°C	15
Temperature (Summer) (July-Sept)	27	°C	22	°C	15

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
		Conc.	Units	Conc.	Units	Number of Samples		
BIOCHEMICAL OXYGEN	BOD-5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Demand (Report one)	CBOD-5	16.1	mg/L	<5.0	mg/L	268	EPA 405.1	5.0 mg/L
FECAL COLIFORM (E. coli) Waiver Requested		N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL SUSPENDED SOLIDS (TSS)		27.8	mg/L	3.8	mg/L	268	EPA 160.2	1.0 mg/L

END OF PART A.
REFER TO THE APPLICATION OVERFIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C. (Certification

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

10,000 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

Locating and repairing I&I is an on-going process.

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.) **See attached Figure 1.**

a. The area surrounding the treatment plant, including all unit processes.

b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.

c. Each well where wastewater from the treatment plant is injected underground. N/A

d. Well, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.

e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.

f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed. N/A

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

See attached Figure 2.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor?

____ Yes _X_ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: _____

Mailing Address: _____

_____

Telephone Number: _____

Responsibilities of Contractor: _____

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

001

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

____ Yes _X_ No

c. If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

In light of current flows and pending industrial discharge(s) that will consume hydraulic and organic capacity, WCSA is in the early stages of planning an expansion to 0.95 MGD.

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage		Schedule MM/DD/YYYY	Actual Completion MM/DD/YYYY
- Begin construction	TBD	___/___/___	___/___/___
- End construction	TBD	___/___/___	___/___/___
- Begin discharge	TBD	___/___/___	___/___/___
- Attain operational level	TBD	___/___/___	___/___/___

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ____ Yes __x__ No

Describe briefly: **Still in early planning stages; schedule and design to be established in the near future.**

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: **001** **Ammonia, TRC, and DO data from facility DMRs (1/07 - 9/11).**

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.											
AMMONIA (as N)	18.3	mg/L	27.0	kg/D	0.38	mg/L	0.47	kg/D	217	SM 4500NH3,F	0.20 mg/L
CHLORINE (TOTAL RESIDUAL, TRC)	<0.1	mg/L	<0.3	kg/D	<0.1	mg/L	<0.1	kg/D	5,202	EPA 330.5	0.1 mg/L
DISSOLVED OXYGEN (1) Minimum value	5.6[(1)]	mg/L	16.1	kg/D	8.0	mg/L	10.0	kg/D	1,734	EPA 360.1	1.0 mg/L
TOTAL KJELDAHL NITROGEN (TKN) Waiver Requested	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NITRATE PLUS NITRITE NITROGEN Waiver Requested	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OIL and GREASE Waiver Requested	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PHOSPHORUS (Total) Waiver Requested	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL DISSOLVED SOLIDS (TDS) Waiver Requested	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OTHER	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

END OF PART B.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

X Basic Application Information packet

Supplemental Application Information packet

_____ Part D (Expanded Effluent Testing Data)

_____ Part E (Toxicity Testing: Biomonitoring Data)

_____ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

_____ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certifiy under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, inlcluding the possibility of fine and imprisonment for knowing violations.

Name and official title	Robert C.H. Cornett, General Manager
Signature	
Telephone number	276-628-7151
Date signed	02 NOVEMBER 2011

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into sections. Sections A pertain to all applicants. The applicability of Sections B, C and D depend on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

1. All applicants must complete Section A (General Information).

2. Will this facility generate sewage sludge? _X_ Yes __ No

   Will this facility derive a material from sewage sludge? __ Yes _X_ No

   If you answered Yes to either, complete Section B (Generation Of Sewage Sludge Or Preparation Of A Material Derived From Sewage Sludge).

3. Will this facility apply sewage sludge to the land? __ Yes _X_ No

   Will sewage sludge from this facility be applied to the land? __ Yes _X_ No

   If you answered No to both questions above, skip Section C.

   If you answered Yes to either, answer the following three questions:

   a. Will the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
   __ Yes __ No

   b. Will sewage sludge from this facility be placed in a bag or other container for sale or give-away for application to the land? __ Yes __ No

   c. Will sewage sludge from this facility be sent to another facility for treatment or blending? __ Yes __ No

   If you answered No to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

   If you answered Yes to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? __ Yes _X_ No

   If Yes, complete Section D (Surface Disposal).

SECTION A. GENERAL INFORMATION

All applicants must complete this section.

1. Facility Information.
   a. Facility name: **Hall Creek Wastewater Treatment Plant**
   b. Contact person: **Tommy Dale Dotson**
      Title: **Wastewater Manager**
      Phone: **(276) 944-4391**
   c. Mailing address:
      Street or P.O. Box: **P.O. Box 1447**
      City or Town: **Abingdon** State: **Virginia** Zip: **24210**
   d. Facility location:
      Street or Route #: **32430 Lee Highway**
      County: **Washington**
      City or Town: **Glade Spring** State: **Virginia** Zip: **24340**
   e. Is this facility a Class I sludge management facility? ___Yes _X_No
   f. Facility design flow rate: **0.63** mgd
   g. Total population served: **~3,000**
   h. Indicate the type of facility:
      _X_ Publicly owned treatment works (POTW)
      ___ Privately owned treatment works
      ___ Federally owned treatment works
      ___ Blending or treatment operation
      ___ Surface disposal site
      ___ Other (describe):

2. Applicant Information. If the applicant is different from the above, provide the following:
   a. Applicant name: **Washington County Service Authority**
   b. Mailing address:
      Street or P.O. Box: **P.O. Box 1447**
      City or Town: Abingdon State: VA Zip: **24210**
   c. Contact person: Robert C.H. Cornett
      Title: General Manager
      Phone: **(276) 628-7151**
   d. Is the applicant the owner or operator (or both) of this facility?
      X owner X operator
   e. Should correspondence regarding this permit be directed to the facility or the applicant? (Check one)
      _____ facility X applicant

3. Permit Information.
   a. Facility's VPDES permit number (if applicable): **VA0087378**
   b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:

Permit Number:	Type of Permit:
N/A	

4. Indian Country. Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? ___Yes _X_No If yes, describe:

5. Topographic Map. Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility: **See Figure 1.**

   a. Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed. **The sludge management facilities are located within the facility's property boundaries shown on Figure 1.**

   b. Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries. **A line that delineates the area within ¼- mile of the facility's proposed boundary is shown on Figure 1. All residences shown within this line are assumed to have domestic wells or springs as their water sources. An additional line indicating the 1-mile radius of the facility is also shown on Figure 1. Hall Creek and its tributaries, Middle Fork of the Holston River and its tributaries, and intermittent drainageways are waterbodies located within this 1-mile radius of the facility.**

6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction. **See Figure 2 and Attachment 1.**

7. Contractor Information. Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? _X_ Yes __ No
   If yes, provide the following for each contractor (attach additional pages if necessary).
   Name: **BFI Carter's Valley Landfill**
   Mailing address: **P.O. Box 234**
   Street or P.O. Box:
   City or Town: Church Hill State: TN Zip: 37642
   Phone: 423-357-6777
   Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:
   SNL # 37-104-0185
   If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).

8. Pollutant Concentrations. Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old. **A Certificate of Analysis for TCLP results for metals, VOCs, and SVOCs is located in Attachment 1.**

POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic				
Cadmium				
Chromium				
Copper				
Lead				
Mercury				
Molybdenum				
Nickel				
Selenium				
Zinc				

9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

_X_ Section A (General Information)
_X_ Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)
____ Section C (Land Application of Bulk Sewage Sludge)
____ Section D (Surface Disposal)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title **Robert C.H. Cornett, General Manager**

Signature _____ Date Signed 02 NOVEMBER 2011

Telephone number (276) 628-7151

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. Amount Generated On Site.
   Total dry metric tons per 365-day period generated at your facility: 62.4 dry metric tons

2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: Washington County School System
   b. Contact Person: Cris Moore
      Title: Maintenance Superintendent
      Phone 276-628-1800
   c. Mailing address:
      Street or P.O. Box: 812 Thompson Drive
      City or Town: Abingdon State: VA Zip: 24210
   d. Facility Address: See Attachment 1.
      (not P.O. Box)
   e. Total dry metric tons per 365-day period received from this facility: _____ dry metric tons.
      See Attachment 1.
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics: There are six package plants in the county school system. Each are extended air package plants except for the Holston High facility which is a trickling filter plant. Each extended air plant has aerobic digesters and haul sludge to Hall Creek WWTP to be dewatered.

3. Treatment Provided at Your Facility.
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
      ___Class A _X_Class B ___Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: Aerobic digestion, de-watering by gravity, and mechanical means.
   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
      _X_ Option 1 (Minimum 38 percent reduction in volatile solids)
      ___ Option 2 (Anaerobic process, with bench-scale demonstration)
      ___ Option 3 (Aerobic process, with bench-scale demonstration)
      _X_ Option 4 (Specific oxygen uptake rate for aerobically digested sludge) if option 1 is not satisfied
      ___ Option 5 (Aerobic processes plus raised temperature)
      ___ Option 6 (Raise pH to 12 and retain at 11.5)
      ___ Option 7 (75 percent solids with no unstabilized solids)
      ___ Option 8 (90 percent solids with unstabilized solids)
      ___ None or unknown
   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: See Attachment 1. Aerobic digestion to reduce vector attraction. Volatile reduction by 38%. De-watering by gravity or mechanical means further reduce volatiles 3-5%.
   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: None

4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge). N/A
   (If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)
   a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land:
      _____ dry metric tons
   b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?
      ___Yes ___No

5. Sale or Give-Away in a Bag or Other Container for Application to the Land. N/A

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land:_____ dry metric tons

b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

6. Shipment Off Site for Treatment or Blending. N/A

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

a. Receiving facility name:

b. Facility contact:
Title:
Phone: ( )

c. Mailing address:
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility: _____ dry metric tons

e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:

Permit Number:	Type of Permit:
_____	
_____	

f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility? ___Yes ___No
Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
___Class A ___Class B ___Neither or unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge:

g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? ___Yes ___No
Which vector attraction reduction option is met for the sewage sludge at the receiving facility?
___ Option 1 (Minimum 38 percent reduction in volatile solids)
___ Option 2 (Anaerobic process, with bench-scale demonstration)
___ Option 3 (Aerobic process, with bench-scale demonstration)
___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
___ Option 5 (Aerobic processes plus raised temperature)
___ Option 6 (Raise pH to 12 and retain at 11.5)
___ Option 7 (75 percent solids with no unstabilized solids)
___ Option 8 (90 percent solids with unstabilized solids)
___ None unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge:

h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?
___Yes ___No
If yes, describe, on this form or another sheet of paper, the treatment processes not identified in f or g above:

i. If you answered yes to f., g or h above, attach a copy of any information you provide to the receiving facility to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.

j. Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? ___Yes ___No
If yes, provide a copy of all labels or notices that accompany the product being sold or given away.

k. Will the sewage sludge be transported to the receiving faciliaty in a truck-mounted watertight tank normally used for such purposes? ___ Yes ___ No. If no, provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.
Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported.

7. Land Application of Bulk Sewage Sludge. N/A

(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6; complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: _____dry metric tons

b. Do you identify all land application sites in Section C of this application? ___Yes ___No
If no, submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).

c. Are any land application sites located in States other than Virginia? ___Yes ___No
If yes, describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV).

8. Surface Disposal. N/A

(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)

a. Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites: _____ dry metric tons

b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
___Yes ___No
If no, answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.

c. Site name or number:

d. Contact person:
Title:
Phone: ( )
Contact is: ___Site Owner ___Site operator

e. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

f. Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site: _____ dry metric tons

g. List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site:

Permit Number:	Type of Permit:
_____	
_____	

9. Incineration. N/A

(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.)

a. Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator: _____ dry metric tons

b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired? ___Yes ___No
If no, answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.

c. Incinerator name or number:

d. Contact person:
Title:
Phone: ( )
Contact is: ___Incinerator Owner ___Incinerator Operator

e. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

f. Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator: _____ dry metric tons

g. List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing of sewage sludge at this incinerator:

Permit Number:	Type of Permit:
_____	
_____	

10. Disposal in a Municipal Solid Waste Landfill.

(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

a. Landfill name: **BFI Carter Valley Landfill**

b. Contact person: **Bruce A. Howard**
Title: **Account Executive**
Phone: **(423) 357-6677**
Contact is: _X_Landfill Owner _X_Landfill Operator

c. Mailing address.
Street or P.O. Box: **P.O. Box 234**
City or Town: **Church Hill** State: **TN** Zip: **37642**

d. Landfill location.
Street or Route #: **2825 Carter's Valley Road**
County: **Hawkins**
City or Town: **Church Hill** State: **TN** Zip: **37642**

e. Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill: 62.4 dry metric tons

f. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill:

Permit Number:	Type of Permit:
SNL# 37-104-0185	**Disposal of Special Waste**

g. Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill? _X_Yes ___No

h. Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.? _X_Yes ___No

i. Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered? _X_Yes ___No
Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week and time of the day sewage sludge will be transported. **See Figure 3 and Attachment 1.**

VPDES Permit Application Addendum

1. **Entity to whom the permit is to be issued:** Washington County Service Authority

Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.

2. **Is this facility located within city or town boundaries?** Yes ☐ No X

3. **Provide the tax map parcel number for the land where the discharge is located.** 069-A-36A

4. **For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities?** None for 0.63 MGD facility; 1-2 acres upon expansion to 0.95 MGD

5. **What is the design average effluent flow of this facility?** 0.63 MGD

For industrial facilities, provide the max. 30-day average production level, include units:

In addition to the design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? Yes X No ☐

If "Yes", please identify the other flow tiers (in MGD) or production levels: **0.95 MGD; receipt of high strength industrial waste expected in 2012; this will consume significant organic capacity. Additional industrial flow anticipated thereafter.**

Please consider the following questions for both the flow tiers and the production levels (if applicable): Do you plan to expand operations during the next five years? Is your facility's design flow considerably greater than your current flow?

6. **Nature of operations generating wastewater:**

Treatment of Domestic Wastewater; industrial wastewater addition expected in 2012

100% of flow from domestic connections/sources **(current)**

Number of private residences to be served by the treatment works:

____ % of flow from non-domestic connections/sources **(~5% in 2012)**

7. **Mode of discharge:** X Continuous ☐ Intermittent ☐ Seasonal

Describe frequency and duration of intermittent or seasonal discharges:

8. **Identify the characteristics of the receiving stream at the point just above the facility's discharge point:**

X Permanent stream, never dry

____ Intermittent stream, usually flowing, sometimes dry

____ Ephemeral stream, wet-weather flow, often dry

____ Effluent-dependent stream, usually or always dry without effluent flow

____ Lake or pond at or below the discharge point

____ Other:

9. **Approval Date(s):**

O & M Manual 8/1/2007 **Sludge/Solids Management Plan** 1/28/1999

Have there been any changes in your operations or procedures since the above approval dates? Yes ☐ No X

Washington County Service Authority
Hall Creek Wastewater Treatment Plant
VPDES VA0087378
Attachment 1.

Section A.6 Description of the Preliminary Treatment Process:

During sludge handling, waste sludge is pumped via the waste sludge pump from the clarifier to one of the four aerobic digesters. After the digestion process, the sludge is pumped to the de-watering building which houses a one-meter belt press capable of de-watering biosolids to 18-22% cake.

After the aerobic process and amount of detention time required for reduction of solids, supernatant is decanted from the digester and sludge is pumped to the de-watering building and to the belt press to de-water the biosolids to sludge cake. The sludge cake is stored in a dump truck or on the drying beds until which time it is taken to the landfill for disposal at Carter's Valley Landfill in Tennessee. At present, only screenings and grit mixed with some biosolids are taken to the landfill as well.

Section B.2. Generation of Sewage Sludge received from off-site facilities for previous 365 days.

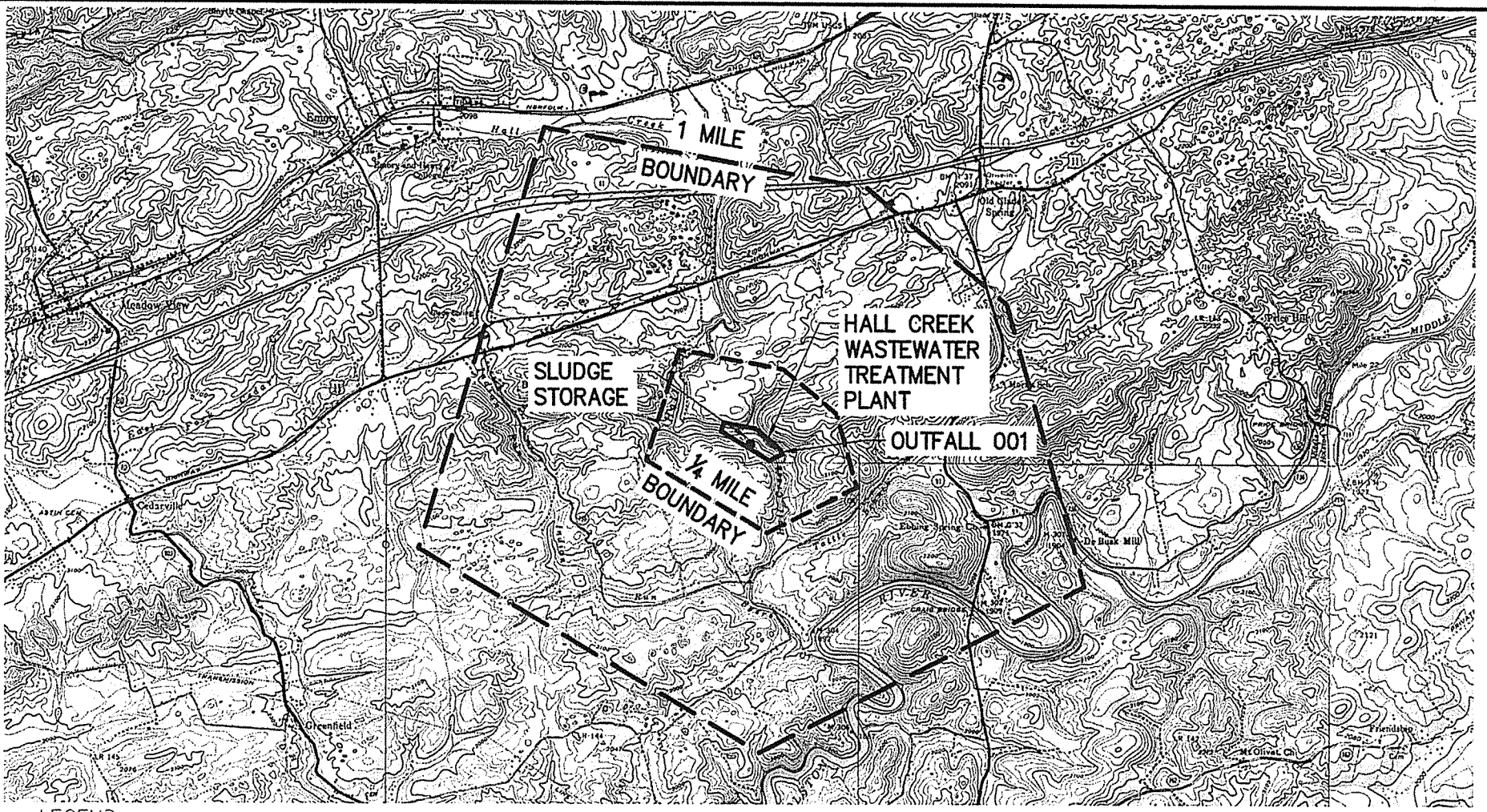
Washington County School System
Contact Person: Cris Moore
Maintenance Superintendent
540-628-1800
812 Thompson Drive
Abingdon, VA 21210

Facility address and amounts from each facility in year 2010:

Location	Gallons Liquid Sludge Hauled	Metric tons hauled
Greendale Elementary School 13092 McGuffie Road Abingdon, VA 24210 VPDES # VA0063673	0	0
Valley Institute School 4350 Gate City Highway Bristol, VA 24202 VPDES # VA0026786	0	0
Watauga Elementary School 23181 Watauga Road Abingdon, VA 24211 VPDES # VA0065315	0	0
Meadowview Elementary School 14050 Glenbrook Avenue Meadowview, VA 24361 VPDES # VA0030589	0	0
Holston High School 21308 Monroe Road Damascus, VA 24326 VPDES # VA0026778	0	0
Rhea Valley Elementary School 31305 Rhea Valley Road Meadowview, VA 24361 VPDES # VA0065323	0	0

CHA

File: V:\PROJ\...BVA\23354\CADD\FIGURES\FIGURE 1.DWG Saved: 10/27/2011 9:13:06 AM Plotted: .../27/2011 9:14:22 AM User: Hodge, Chris LastSavedBy: 3771



LEGEND

- FACILITY BOUNDARY
- ¼ MILE OFFSET
- 1 MILE OFFSET
- ON-SITE WELL

RESIDENCES WITHIN ¼-MILE OF THE PROPERTY BOUNDARY ARE ASSUMED TO UTILIZE DOMESTIC WELLS OR SPRINGS AS THEIR SOURCE OF WATER.

0 4000 8000
Scale in feet

CHA
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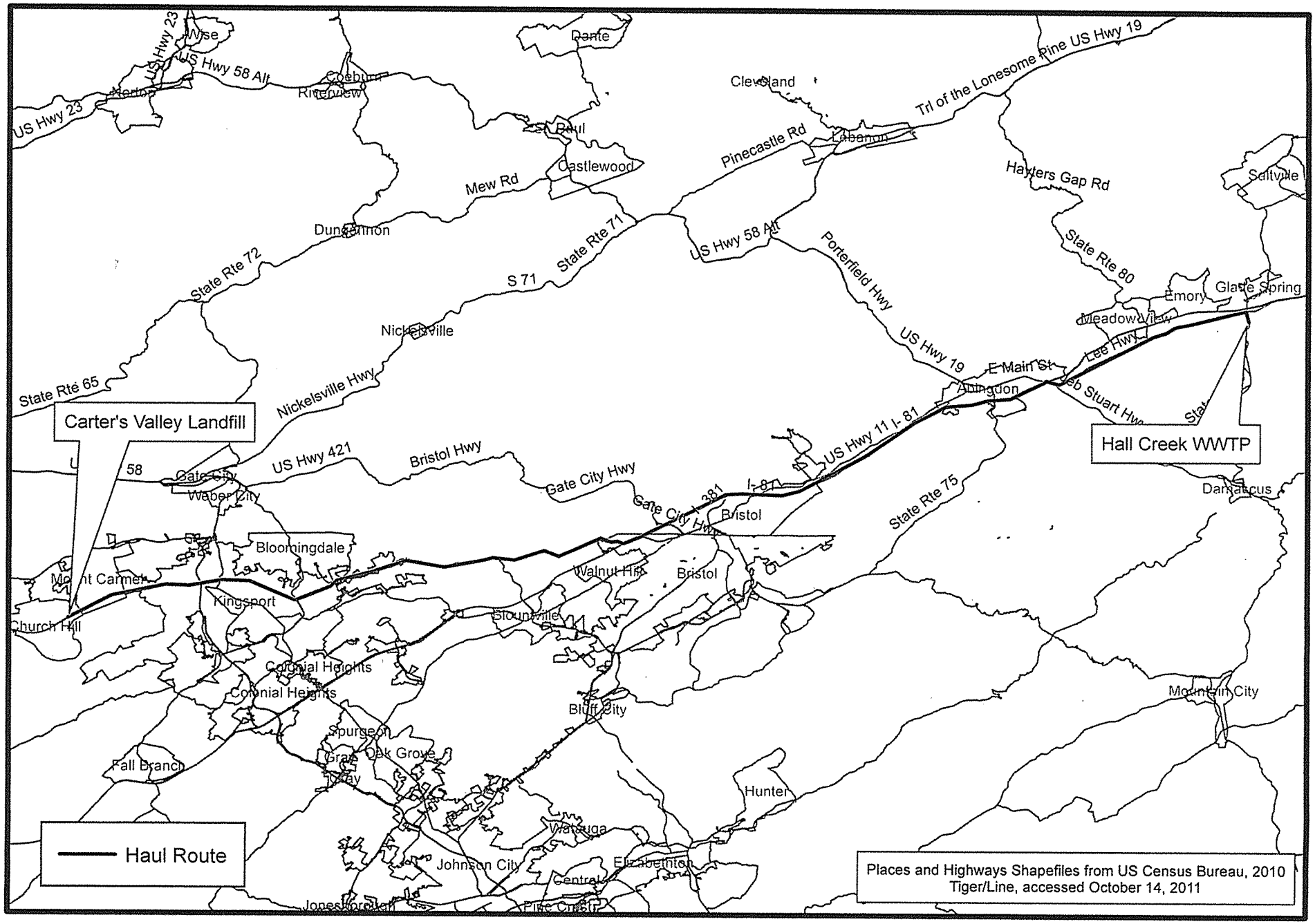
HALL CREEK WASTEWATER TREATMENT PLANT WASHINGTON COUNTY, VIRGINIA SITE LOCATION MAP

PROJECT NO. 23354

DATE: OCT 2011

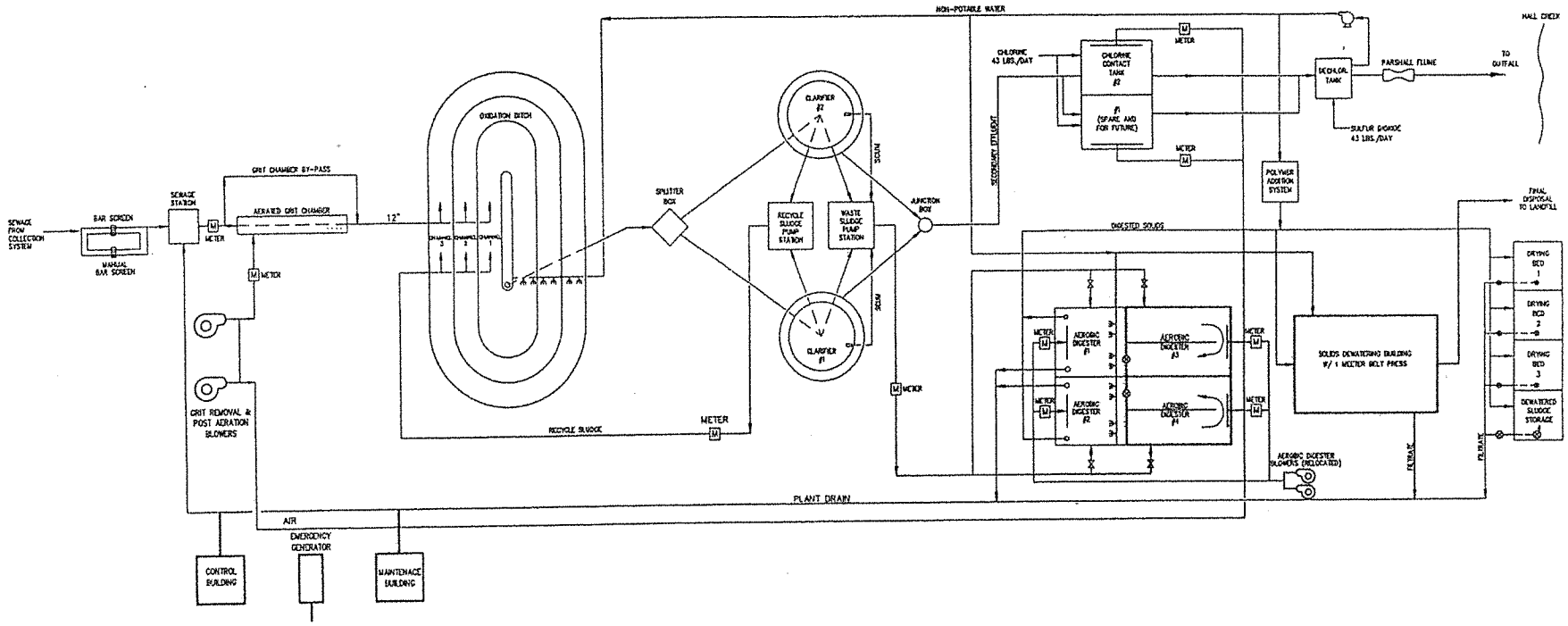
FIGURE 1



October 2011
Job Number 23354

Hall Creek Wastewater Treatment Plant
Haul Route
Figure 3

CHA



*DRAWING FROM DAA, SCHEMATIC WASTEWATER FLOW HALL CREEK WASTEWATER TREATMENT FACILITY, WASHINGTON COUNTY, VIRGINIA, 11/30/2006

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HALL CREEK WASTEWATER TREATMENT PLANT
WASHINGTON COUNTY, VIRGINIA
PROCESS FLOW SCHEMATIC

PROJECT NO. 23354
DATE: OCT 2011
FIGURE 2